

the condition of education 2007



INDICATOR 39

Variations in Instruction Expenditures per Student

The indicator and corresponding tables are taken directly from *The Condition of Education 2007*. Therefore, the page numbers may not be sequential.

Additional information about the survey data and supplementary notes can be found in the full report. For a copy of *The Condition of Education 2007*, visit the NCES website (<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2007064>) or contact ED PUBs at 1-877-4ED-PUBS.

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Finance

Variations in Instruction Expenditures per Student

Between 1989–90 and 2003–04, differences between states accounted for a greater proportion of the variation in instruction expenditures per student among unified public school districts than did differences within states.

A number of methods can be used to measure the variation in the amount school districts spend per student on instruction. This indicator uses the *Theil coefficient* because it provides a national measure of differences in instruction expenditures per student that can be decomposed into separate components to measure school district-level variations both between and within states. In this indicator, a coefficient of zero indicates that there is no variation in the instruction expenditures per student in unified public school districts for kindergarten through grade 12, and the amount of variation present increases as the Theil coefficient increases in size.

Across U.S. districts, most of the variation in instruction expenditures is due to differences between states, rather than differences within states (see supplemental table 39-1). Between 1989–90 and 1997–98, the size of the variation decreased, and although the variation has increased in size since the late 1990s, it remains lower than in the early 1990s. As was the case for the total variation, when the variations due to between- and within-state differences

are considered separately, both components showed decreases between 1989–90 and 1997–98. However, since 1997–98, the trends have changed. The between-state component increased, while the within-state component remained largely unchanged, with the between-state variation accounting for 74 percent of the total variation in 1997–98 and 78 percent in 2003–04. Hence, the increase in the total variation between 1997–98 and 2003–04 was largely due to increases in the variation between states.

Changes in the variation in instruction expenditures over time may reflect differences across school districts in the trends in the amount of services or goods purchased, such as the number of classroom teachers hired. However, they may also be attributed to differences in the trends in the cost of items purchased, such as teacher salaries. The variations over time in the amount of services or goods purchased may, in part, reflect various state litigation and school finance reform efforts. Further, some of the variations in expenditures per pupil across states may be due to cost differences across states.

¹ The *Theil coefficient* measures variation for groups within a set (i.e., states within the country) and indicates relative variation over time. See supplemental note 11 for more information.

NOTE: Public elementary and secondary unified districts are those districts that serve both elementary and secondary grades. In 2003–04, approximately 71 percent of all school districts were unified school districts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "NCES Longitudinal School District Fiscal-Nonfiscal (FNF) File, Fiscal Years 1990 to 2002" and "School District Finance Survey (Form F-33)," 2002–03 to 2003–04.

FOR MORE INFORMATION:

Supplemental Notes 3, 11

Supplemental Table 39-1

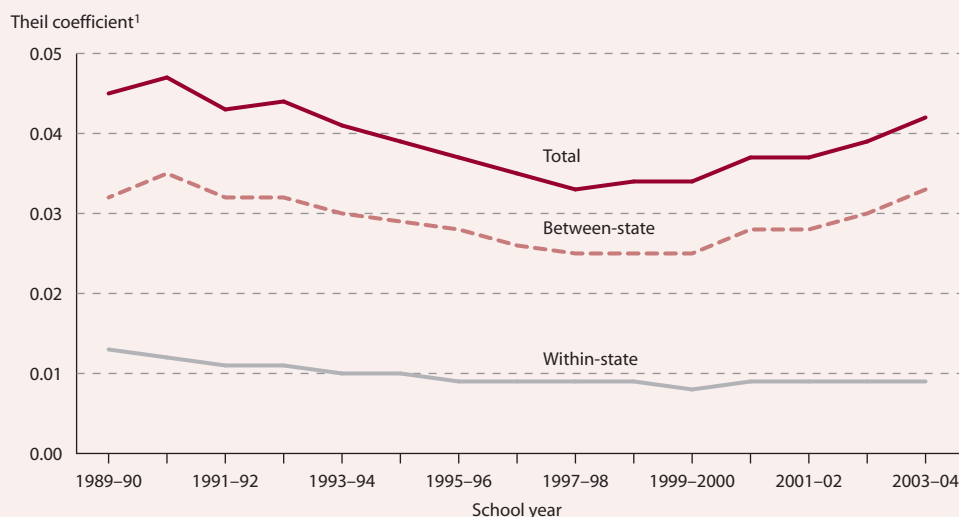
NCES 2000-020

NCES 2001-323

Murray, Evans, and Schwab
1998



VARIATIONS IN EXPENDITURES: Variation in instruction expenditures in unified public elementary and secondary school districts, by source of variation: 1989–90 to 2003–04



Variations in Instruction Expenditures per Student

Table 39-1. Variation and percentage distribution of variation in instruction expenditures in unified public elementary and secondary school districts, by source of variation: 1989–90 to 2003–04

School year	Theil coefficient ¹	Between-state component	Within-state component	Percentage distribution		
				Theil coefficient ¹	Between-state component	Within-state component
1989–90	0.0448	0.0322	0.0125	100.0	72.0	28.0
1990–91	0.0469	0.0346	0.0123	100.0	73.8	26.2
1991–92	0.0434	0.0320	0.0115	100.0	73.6	26.4
1992–93	0.0437	0.0324	0.0113	100.0	74.2	25.8
1993–94	0.0405	0.0301	0.0104	100.0	74.3	25.7
1994–95	0.0389	0.0288	0.0100	100.0	74.2	25.8
1995–96	0.0373	0.0279	0.0094	100.0	74.8	25.2
1996–97	0.0349	0.0257	0.0092	100.0	73.7	26.3
1997–98	0.0332	0.0246	0.0086	100.0	74.0	26.0
1998–99	0.0335	0.0249	0.0087	100.0	74.2	25.8
1999–2000	0.0337	0.0253	0.0085	100.0	74.9	25.1
2000–01	0.0370	0.0280	0.0090	100.0	75.7	24.3
2001–02	0.0373	0.0283	0.0089	100.0	76.1	23.9
2002–03	0.0391	0.0303	0.0088	100.0	77.6	22.4
2003–04	0.0420	0.0327	0.0093	100.0	77.9	22.1

¹The *Theil coefficient* measures variation for groups within a set (i.e., states within the country) and indicates relative variation and any differences that may exist among them. It can be decomposed into components measuring between-state and within-state variation in expenditures per student. It has a minimum value of zero and increasing values indicate increases in the variation. See *supplemental note 11* for more information.

NOTE: Detail may not sum to totals because of rounding. Public elementary and secondary unified districts are those districts that serve both elementary and secondary grades. In 2003–04, approximately 71 percent of all school districts were unified school districts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "NCES Longitudinal School District Fiscal–Nonfiscal (FNF) File, Fiscal Years 1990 to 2002" and "School District Finance Survey (Form F-33)," 2002–03 to 2003–04.